

1
SEQUENCE LISTING

<110> Kaplan, Aaron
Lieman-Hurwitz, Judy
Rachmilevitch, Shimon
Schatz, Daniella
Mittler, Ron

<120> PLANTS CHARACTERIZED BY ENHANCED GROWTH AND METHODS AND NUCLEIC
ACID CONSTRUCTS USEFUL FOR GENERATING SAME

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<170> PatentIn version 3.2

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Pro Met Thr Gly Leu Ser Leu Ser Ala Leu Val Val Trp Arg Arg Trp
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Trp Pro Lys Leu Leu Gly Ala Thr Met Val Ile Val Asn Leu Leu Cys
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Ser Thr Leu Val Gly Val Leu Leu Ile Ala Cys Val Gly Phe Trp Leu
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 Arg Gln Leu Arg Gln Ser Ala Asn Val Gln Gly Phe Trp Leu Val Gly
 405 410 415
 Ala Leu Ala Thr Leu Leu Gly Met Leu Ala His Gly Thr Val Asp Thr
 420 425 430
 Ile Trp Phe Arg Pro Glu Val Asn Thr Leu Trp Trp Leu Met Val Ala
 435 440 445
 Leu Ile Ala Ser Tyr Trp Thr Pro Leu Ser Ala Asn Gln Cys Gln Glu
 450 455 460
 Leu Asn Leu Phe Lys Glu Glu Pro Thr Ser Asn
 465 470 475
 <210> 7
 <211> 472
 <212> PRT
 <213> Nostoc punctiforme
 <400> 7
 Met Asn Leu Val Trp Gln Leu Phe Thr Leu Ser Ser Leu Pro Leu Lys
 1 5 10 15
 Glu Tyr Leu Ala Thr Ser Tyr Val His Arg Ser Leu Val Gly Leu Leu
 20 25 30
 Ser Ser Trp Arg Gln Thr Ser Val Leu Ile Gln Trp Gly Asp Ala Ile
 35 40 45
 Ala Ala Val Leu Leu Ser Ser Ile Tyr Ala Leu Ala Pro Phe Ala Ser
 50 55 60
 Ser Thr Leu Val Gly Leu Leu Leu Val Ala Cys Val Gly Phe Trp Leu
 65 70 75 80
 Leu Leu Thr Leu Ser Asp Glu Val Thr Pro Ala Asn Val Ser Ser Val
 85 90 95

Thr Pro Ile His Leu Leu Val Leu Leu Tyr Trp Gly Ile Ala Val Ile
 100 105 110
 Ala Thr Ala Leu Ser Pro Val Lys Lys Ala Ala Leu Asn Asp Leu Gly
 115 120 125
 Thr Leu Thr Leu Tyr Leu Leu Leu Phe Ala Leu Cys Ala Arg Val Leu
 130 135 140
 Arg Ser Pro Arg Leu Arg Ser Trp Ile Leu Thr Leu Tyr Leu His Val
 145 150 155 160
 Ser Leu Ile Val Ser Val Tyr Gly Leu Arg Gln Trp Phe Phe Gly Ala
 165 170 175
 Thr Ala Leu Ala Thr Trp Val Asp Pro Glu Ser Pro Leu Ser Lys Thr
 180 185 190
 Thr Arg Val Tyr Ser Tyr Leu Gly Asn Pro Asn Leu Leu Ala Gly Tyr
 195 200 205
 Leu Leu Pro Ala Val Ile Phe Ser Leu Val Ala Ile Phe Ala Trp Gln
 210 215 220
 Ser Trp Leu Lys Lys Ala Leu Ala Leu Thr Met Leu Ile Val Asn Thr
 225 230 235 240
 Ala Cys Leu Ile Leu Thr Phe Ser Arg Gly Gly Trp Ile Gly Leu Val
 245 250 255
 Val Ala Val Leu Ala Val Met Ala Leu Leu Val Phe Trp Lys Ser Val
 260 265 270
 Glu Met Pro Pro Phe Trp Arg Thr Trp Ser Leu Pro Ile Val Leu Gly
 275 280 285
 Gly Leu Ile Gly Ile Leu Leu Leu Ala Val Ile Phe Val Glu Pro Val
 290 295 300
 Arg Leu Arg Val Phe Ser Ile Phe Ala Asp Arg Gln Asp Ser Ser Asn
 305 310 315 320
 Asn Phe Arg Arg Asn Val Trp Asp Ala Val Phe Glu Met Ile Arg Asp
 325 330 335
 Arg Pro Ile Phe Gly Ile Gly Pro Gly His Asn Ser Phe Asn Lys Val
 340 345 350
 Tyr Pro Leu Tyr Gln His Pro Arg Tyr Thr Ala Leu Ser Ala Tyr Ser
 355 360 365
 Ile Leu Phe Glu Val Thr Val Glu Thr Gly Phe Val Gly Leu Ala Cys
 370 375 380
 Phe Leu Trp Leu Ile Ile Val Thr Phe Asn Thr Ala Leu Leu Gln Val
 385 390 395 400
 Arg Arg Leu Arg Arg Leu Arg Ser Val Glu Gly Phe Trp Leu Ile Gly
 405 410 415

Ala Ile Ala Ile Leu Leu Gly Met Leu Ala His Gly Thr Val Asp Thr
 420 425 430

Val Trp Tyr Arg Pro Glu Val Asn Thr Leu Trp Trp Leu Ile Val Ala
 435 440 445

Leu Ile Ala Ser Tyr Trp Thr Pro Leu Thr Gln Asn Gln Thr Asn Pro
 450 455 460

Ser Asn Pro Glu Pro Ala Val Asn
 465 470

<210> 8
 <211> 1425
 <212> DNA
 <213> Anabaena PCC7120

<400> 8
 atgaatttag tctggcaacg atttacttta tcttctttac ctctaaaaca gtttctagct 60
 acaagttact tacatcggtt cctagtggga ctgttatctt cttggcggca aactagtttc 120
 ttacttcagt ggggagacat gattgcagct gcgttactca gcttgatata tgttttggct 180
 ccctttgtct ctagtactct cgttggtgtg ctgctgatag cttgtgtagg tttttggtta 240
 ttgttgactt tatctgatga accttcatca aacaataact cccttggtac tcccatcac 300
 ctgttggtgt tgctctattg gggaattgct gctgtagcaa cggcattatc accagtcaag 360
 aaggcagcat taactgattt gttaaccttg actttgtatt tgctactatt tgctctttgt 420
 gccaggggtc tgagatcgcc gcgtctgagg tcttgatca ttacctcta cctatctgca 480
 tcaactggtg tcagtatata tggaatgcga caatggcggt ttggtgcgcc cccactggcg 540
 acttgggttg atccagagtc caccttgtct aaaaccacaa gggtttacag ttatttaggc 600
 aatcccaatt tggttgcttg ttatttagta ccggcgggtga tttttagcct catggcagtt 660
 tttgtctggc agggctgggc aagaaaatct ttagctgtaa caatgctgtt tgtaaact 720
 gcttgcttaa tttttactta tagtcgtggc ggctggattg gtcttggtgt agcagctcta 780
 ggggcgacgg cattgctagt tgattggtgg agtgtgcaaa tgccgccttt ttggcgaacc 840
 tggtcattac ccatactttt gggcgggttg atcgggggtat tgttgattgc ggtgttattt 900
 gtcgagccag tccggtttcg agttctcagt atttttgccg atcgccaaga tagcagcaat 960
 aattttcgcc gcaacgtgtg ggatgctgtt ttgagatga tccgcgatcg cccaattatt 1020
 ggtattggcc ctggtcataa ttcttttaaat aaagtctacc ctctttacca aagacctcgt 1080
 tatagtgttt taagtgccta ttccatcttc ctagaggttg ctgtagaaat gggttttgtt 1140
 ggactagctt gctttctctg gttaattatc gtcactatta atacagcatt cgttcagcta 1200
 cgccaactgc gccaatctgc caatgtgcaa ggatttttgt tgggtgggtgc cttagccaca 1260
 ttgctgggaa tgctggctca cgggtacggt gacactatat ggtttcgtcc ggaagttaat 1320
 actcttttgt ggtaaatggt tgctctcatt gctagctatt ggacacctt atccgcaaac 1380
 caatgtcaag aactcaattt atttaaggaa gaaccacaa gcaac 1425

<210> 9
 <211> 1419
 <212> DNA
 <213> Nostoc punctiforme

<400> 9

atgaatttag tctggcaact atttacttta tcatctttac cgctcaaaga atatcttgct 60
 accagttacg tacaccgttc tctggtggga ctgttaagct cttggcggca aaccagcgct 120
 ttgattcagt ggggagatgc gatagcagct gtattactca gctcaatata tgcccttgca 180
 ccttttgctt cgagtacttt ggtaggttta ttgctggtcg cttgtgtggg attttggcta 240
 ttgttgactt tatctgatga agtcacacca gcaaatgtct cgtcagtcac tccattcat 300
 ctactggtat tgctctactg ggggaattgcc gtaatcgcaa cagcattatc accagtgaag 360
 aaagcggcac ttaacgactt ggggaactttg accttgattt tgctactatt tgccctttgt 420
 gccaggttat taaggtcgcc tcgcctccgg tcttggtatc tcacccttta tctgcacgta 480
 tcgttaattg tcagtgtcta tggattgcgg caatggtttt ttggagccac agcactggca 540
 acttgggttg atccggaatc tcctctgtct aagactacaa gagtctacag ttatttagga 600
 aatcccaact tattggctgg atacctctta ccagcagtaa tttttagctt ggtggcaatt 660
 tttgcatggc aaagtggct caaaaaagcc ttagcattaa caatgtgat tgtcaatact 720
 gcctgcctga tcctgacttt tagtcgtggc ggttggtattg gactagtgtt ggcagttttg 780
 gcggtgatgg cattgctagt tttttggaag agtgtggaaa tgcctccttt ttggcgctact 840
 tggtcgctgc ccattgtctt aggaggttta attgggatat tactgttagc agtgatattt 900
 gtagagccag ttcgcctgcg ggtgttcagc atttttgctg accgtcaaga tagtagtaat 960
 aattttcgtc gaaatgtgtg ggatgctgtc tttgagatga ttcgcgatcg cccaattttc 1020
 ggtattggcc ctggtcacaa ctcttttaat aaagtttatc cgctctacca acaccctcgg 1080
 tacactgctt taagtgttta ttcgattttg tttgaagtga ctgtagaaac tgggtttggt 1140
 ggttttagctt gctttctctg gctaataatc gtcacattta atacggcgct tttgcaagta 1200
 cgacgattgc gacgattgag aagtgtagag ggattttggt taattggagc gatcgctatt 1260
 ttgttgggta tgctcgctca cggcactgta gatactgtct ggtatcgctc tgaagtcaat 1320
 accctctggt ggctcatcgt tgctttaatt gccagctact ggacaccttt aactcaaaac 1380
 cagacaaatc catctaacc agaacagca gtaactaa 1419

<210> 10
 <211> 461
 <212> PRT
 <213> *Trichodesmium erythraeum*

<400> 10

Met Asn Ser Val Trp Lys Lys Leu Thr Leu Thr Asn Leu Ser Phe Ser
1 5 10 15

Asp Ser Glu Trp Leu Asn Ala Ser Tyr Leu Tyr Gly Leu Leu Asn Gly
20 25 30

Ser Leu Tyr Asn Trp Arg Arg Gly Ser Trp Leu Met Gln Trp Gly Glu
35 40 45

Pro Leu Gly Phe Val Leu Leu Ala Ile Val Phe Thr Leu Ala Pro Phe
50 55 60

Val Asn Thr Thr Leu Ile Gly Phe Leu Leu Leu Ala Ser Ala Gly Phe
65 70 75 80

Trp Val Leu Leu Lys Val Ser Asp Asn Thr Gln Glu Tyr Leu Thr Pro
85 90 95

Ile His Leu Leu Ile Phe Leu Tyr Trp Ser Ile Ala Thr Leu Ala Val
 100 105 110

Val Ile Ser Pro Ala Lys Thr Ala Ala Phe Ser Gly Trp Val Lys Leu
 115 120 125

Thr Leu Tyr Leu Leu Leu Phe Ala Ser Gly Ser Leu Val Leu Arg Ser
 130 135 140

Pro Arg Leu Arg Ser Trp Leu Ile Asn Ile Tyr Leu Leu Val Ser Leu
 145 150 155 160

Val Val Ser Phe Tyr Gly Ile Arg Gln Trp Ile Asp Lys Val Glu Pro
 165 170 175

Leu Ala Thr Trp Asn Asp Pro Thr Ser Ala Gln Ala Gly Ala Thr Arg
 180 185 190

Val Tyr Ser Tyr Leu Gly Asn Pro Asn Leu Leu Gly Gly Tyr Leu Leu
 195 200 205

Pro Ala Ile Ala Leu Ser Phe Val Ala Ile Phe Ala Trp Ser Ser Trp
 210 215 220

Ala Arg Lys Ser Leu Ala Val Thr Ile Leu Leu Val Ser Cys Ala Cys
 225 230 235 240

Leu Arg Tyr Thr Gly Ser Arg Gly Ser Trp Ile Gly Phe Leu Ala Leu
 245 250 255

Met Phe Ala Met Leu Ile Leu Met Trp Tyr Trp Trp Arg Ser Tyr Met
 260 265 270

Pro Ser Phe Trp Gln Ile Trp Ser Leu Pro Ile Ala Val Gly Ser Phe
 275 280 285

Ala Gly Leu Leu Ile Leu Ala Val Val Leu Leu Glu Pro Leu Arg Asp
 290 295 300

Arg Val Leu Ser Val Phe Ala Gly Arg Gln Asp Ser Ser Asn Asn Phe
 305 310 315 320

Arg Met Asn Val Trp Met Ser Val Phe Asp Met Ile Arg Asp Arg Pro
 325 330 335

Ile Leu Gly Ile Gly Pro Gly Asn Asp Val Phe Asn Lys Ile Tyr Pro
 340 345 350

Leu Tyr Gln Arg Pro Arg Tyr Ser Ala Leu Ser Ser Tyr Ser Val Pro
 355 360 365

Leu Glu Ile Val Val Glu Thr Gly Phe Ile Gly Leu Thr Ala Phe Leu
 370 375 380

Trp Leu Leu Leu Val Thr Phe Asn Gln Gly Val Leu Gln Leu Lys Arg
 385 390 395 400

Leu Arg Asp Ala Asp Asn Pro Gln Gly Tyr Trp Leu Ile Gly Ala Ile
 405 410 415

Ala Ala Met Val Gly Leu Ile Gly His Gly Leu Val Asp Thr Val Trp
 420 425 430

Tyr Arg Pro Gln Val Asn Thr Ile Trp Trp Leu Met Val Ala Ile Ile
 435 440 445

Ala Ser Tyr Ser Ser Gln Gln Gly Val Arg Ser Arg Glu
 450 455 460

<210> 11
 <211> 463
 <212> PRT
 <213> Thermosynechococcus elongatus BP-1

<400> 11

Met Asp Val Leu Leu Arg Arg Leu Asp Val Glu Gly Trp Arg Ser His
 1 5 10 15

Ser Gly Val Gly Arg Leu Leu Gly Leu Leu Gln Gly Trp Gln Glu Lys
 20 25 30

Ser Trp Leu Gly Arg Trp Leu Pro Ser Leu Ala Val Leu Leu Val Gly
 35 40 45

Leu Val Leu Val Leu Ala Pro Leu Met Pro Ser Gly Met Ile Gly Met
 50 55 60

Leu Leu Ala Ala Gly Ser Gly Phe Trp Leu Leu Trp Thr Leu Ala Gly
 65 70 75 80

Glu Arg Glu Gly Arg Trp Ser Gly Val His Leu Leu Val Leu Leu Tyr
 85 90 95

Trp Gly Ile Ala Leu Leu Ala Thr Val Leu Ser Pro Val Pro Arg Ala
 100 105 110

Ala Met Val Gly Leu Gly Lys Leu Thr Leu Tyr Leu Leu Phe Phe Ala
 115 120 125

Leu Ala Glu Arg Val Met Arg Asn Glu Arg Trp Arg Ser Arg Leu Leu
 130 135 140

Thr Val Tyr Leu Leu Thr Ala Leu Met Val Ser Val Glu Gly Val Arg
 145 150 155 160

Gln Trp Ile Phe Gly Ala Glu Pro Leu Ala Thr Trp Thr Asp Pro Glu
 165 170 175

Ser Ala Leu Ala Asn Val Thr Arg Val Tyr Ser Phe Leu Gly Asn Pro
 180 185 190

Asn Leu Leu Ala Gly Tyr Leu Leu Pro Ser Val Pro Leu Ser Ala Ala
 195 200 205

Ala Ile Ala Val Trp Gln Gly Trp Leu Pro Lys Leu Leu Ala Val Val
 210 215 220

Met Leu Gly Met Asn Ala Ala Ser Leu Ile Leu Thr Phe Ser Arg Gly
 225 230 235 240

Gly Trp Leu Gly Leu Val Ala Ala Thr Ile Ala Gly Val Val Leu Leu
245 250 255

Gly Ile Trp Phe Trp Pro Arg Leu Pro Leu Gln Trp Arg Arg Trp Gly
260 265 270

Val Pro Thr Met Gly Gly Leu Ala Ile Ala Leu Cys Met Gly Thr Ile
275 280 285

Val Ser Val Pro Pro Leu Arg Glu Arg Ala Ala Ser Ile Phe Val Ala
290 295 300

Arg Gly Asp Ser Ser Asn Asn Phe Arg Ile Asn Val Trp Met Ala Val
305 310 315 320

Gln Gln Met Ile Trp Ala Arg Pro Trp Leu Gly Ile Gly Pro Gly Asn
325 330 335

Val Ala Phe Asn Gln Ile Tyr Pro Leu Tyr Gln Val Asn Val Arg Phe
340 345 350

Thr Ala Leu Gly Ala Tyr Ser Ile Phe Leu Glu Ile Leu Val Glu Val
355 360 365

Gly Phe Ile Gly Phe Gly Val Phe Leu Trp Leu Leu Ala Val Leu Gly
370 375 380

Asp Arg Ala Arg Arg Cys Phe Glu Glu Leu Arg Ala Thr Gly Ser Pro
385 390 395 400

Gln Gly Phe Trp Leu Met Gly Thr Ile Ala Ala Met Ile Gly Met Leu
405 410 415

Thr His Gly Leu Val Asp Thr Ile Trp Phe Arg Pro Glu Val Ala Thr
420 425 430

Leu Trp Trp Leu Met Val Ala Ile Val Ala Ser Phe Thr Pro Phe Gln
435 440 445

Ser Lys Thr Ala Asn Gly Thr Phe Ser Asn Arg Asp Pro Glu Pro
450 455 460

<210> 12
<211> 439
<212> PRT
<213> Prochlorococcus marinus

<400> 12

Met Pro Lys Thr Ala Ala Pro Gln Pro Leu Leu Leu Arg Trp Gln Gly
1 5 10 15

His Ile Pro Ser Ser Glu Ala Met Gln Met Arg Leu Gln Trp Ile Ala
20 25 30

Gly Leu Leu Leu Met Met Leu Leu Ala Thr Leu Pro Met Leu Thr Arg
35 40 45

Thr Gly Leu Gly Leu Thr Ile Leu Ala Ala Gly Ala Leu Trp Ile Ile
50 55 60

Trp Gly Cys Val Thr Pro Ala Gly Arg Ile Gly Ser Ile Ser Ser Cys
 65 70 75 80
 Leu Leu Val Phe Phe Ala Ile Ala Cys Leu Ala Thr Gly Phe Ser Pro
 85 90 95
 Val Pro Leu Ala Ala Ala Lys Gly Leu Ile Lys Leu Ile Ser Tyr Leu
 100 105 110
 Gly Val Tyr Ala Leu Met Arg Gln Leu Leu Ala Thr Ser Ser Asp Trp
 115 120 125
 Trp Asp Arg Leu Val Ala Ala Leu Leu Thr Gly Glu Leu Ile Ser Ser
 130 135 140
 Val Ile Ala Ile Arg Gln Leu Tyr Ala Pro Ala Glu Glu Met Ala His
 145 150 155 160
 Trp Ala Asp Pro Asn Ser Val Ala Ala Gly Thr Val Arg Ile Tyr Gly
 165 170 175
 Pro Leu Gly Asn Pro Asn Leu Leu Ala Gly Tyr Leu Met Pro Ile Leu
 180 185 190
 Pro Leu Ala Leu Val Ala Leu Leu Arg Trp Gln Gly Leu Gly Ala Lys
 195 200 205
 Leu Tyr Ala Met Val Ala Leu Gly Leu Gly Ile Thr Ala Thr Leu Phe
 210 215 220
 Ser Phe Ser Arg Gly Gly Trp Leu Gly Met Leu Ser Ala Leu Ala Val
 225 230 235 240
 Ile Leu Val Leu Leu Leu Leu Arg Ser Thr Ser His Trp Pro Leu Val
 245 250 255
 Trp Arg Arg Leu Leu Pro Leu Ile Val Ile Val Leu Gly Thr Ala Met
 260 265 270
 Leu Val Ile Ala Ala Thr Gln Ile Glu Pro Ile Arg Thr Arg Ile Thr
 275 280 285
 Ser Leu Ile Ala Gly Arg Ser Asp Ser Ser Asn Asn Phe Arg Ile Asn
 290 295 300
 Val Trp Leu Ser Ser Leu Glu Met Ile Gln Ala Arg Pro Trp Leu Gly
 305 310 315 320
 Ile Gly Pro Gly Asn Ala Ala Phe Asn Arg Ile Tyr Pro Leu Phe Gln
 325 330 335
 Gln Pro Lys Phe Asn Ala Leu Ser Ala Tyr Ser Val Pro Leu Glu Ile
 340 345 350
 Leu Val Glu Thr Gly Leu Ala Gly Leu Met Ala Ser Leu Ala Leu Val
 355 360 365
 Ile Thr Gly Met Arg Lys Gly Leu Ala Gly Leu Asn Ser Asn His Pro

370

375

380

Leu Ala Leu Pro Ala Leu Ala Ser Leu Ala Ala Ile Ala Gly Leu Ala
 385 390 395 400

Val His Gly Ile Thr Asp Thr Ile Phe Phe Arg Pro Glu Val Gln Leu
 405 410 415

Val Gly Trp Phe Cys Leu Ala Thr Leu Ala Gln Thr Gln Pro Glu Gln
 420 425 430

Lys Gln Leu Gln Gln Thr Glu
 435

<210> 13
 <211> 431
 <212> PRT
 <213> Synechococcus WH 8102

<400> 13

Met Ala Asp Ala Thr Asp Gln Arg Ser Ile Pro Leu Leu Leu Arg Trp
 1 5 10 15

Gln Gly Cys Leu Thr Pro Thr Ala Ser Val Gln Gln Arg Leu Glu Leu
 20 25 30

Leu Ser Gly Val Val Leu Met Leu Leu Leu Gly Ser Leu Pro Phe Val
 35 40 45

Ser Arg Ser Gly Leu Gly Leu Glu Leu Ala Ala Ala Gly Leu Leu Trp
 50 55 60

Leu Leu Trp Ser Leu Ile Thr Pro Ala Lys Arg Leu Gly Ala Ile Ser
 65 70 75 80

Arg Trp Val Leu Leu Tyr Leu Ala Ile Ala Trp Val Cys Thr Gly Phe
 85 90 95

Ser Pro Val Pro Ile Ala Ala Ala Lys Gly Leu Leu Lys Leu Thr Ser
 100 105 110

Tyr Leu Gly Val Tyr Ala Leu Met Arg Thr Leu Leu Glu Arg Gln Ile
 115 120 125

Val Trp Trp Asp Arg Leu Leu Ala Ala Leu Leu Gly Gly Gly Leu Phe
 130 135 140

Ser Ser Val Leu Ala Leu Arg Gln Leu Tyr Ala Ser Thr Asp Glu Leu
 145 150 155 160

Ala Gly Trp Ala Asp Pro Asn Ser Val Ser Ala Gly Thr Ile Arg Ile
 165 170 175

Tyr Gly Pro Leu Gly Asn Pro Asn Leu Leu Ala Gly Tyr Leu Leu Pro
 180 185 190

Leu Val Pro Leu Ala Cys Ile Ala Val Leu Arg Trp Lys Arg Leu Ser
 195 200 205

Cys Arg Leu Leu Ala Ala Val Thr Ala Leu Leu Ala Gly Ser Ala Thr

| | | |
|--|-----|-----|
| 210 | 215 | 220 |
| Val Phe Thr Tyr Ser Arg Gly Gly Trp Leu Gly Leu Leu Ala Ala Leu 225 230 235 240 | | |
| Ala Leu Ala Gly Met Leu Ile Leu Leu Arg Thr Thr Ala His Trp Pro 245 250 255 | | |
| Pro Leu Trp Arg Arg Leu Leu Pro Leu Ala Ala Leu Leu Ile Ala Gly 260 265 270 | | |
| Ile Ala Leu Ala Leu Ala Ile Thr Gln Leu Asp Pro Ile Arg Thr Arg 275 280 285 | | |
| Val Leu Ser Leu Val Ala Gly Arg Gly Asp Ser Ser Asn Asn Phe Arg 290 295 300 | | |
| Ile Asn Val Trp Leu Ala Ala Ile Glu Met Val Gln Asp Arg Pro Trp 305 310 315 320 | | |
| Leu Gly Ile Gly Pro Gly Asn Ala Ala Phe Asn Ser Ile Tyr Pro Leu 325 330 335 | | |
| Tyr Gln Gln Pro Lys Phe Asp Ala Leu Ser Ala Tyr Ser Val Pro Leu 340 345 350 | | |
| Glu Ile Leu Val Glu Thr Gly Ile Pro Gly Leu Leu Ala Cys Leu Gly 355 360 365 | | |
| Leu Leu Leu Ser Ser Ile Gln Arg Gly Leu Arg Ile His Gly Gln Gln 370 375 380 | | |
| Gly Leu Ile Ala Ile Gly Ser Leu Ala Ala Ile Ala Gly Leu Leu Thr 385 390 395 400 | | |
| Gln Gly Ile Thr Asp Thr Ile Phe Phe Arg Pro Glu Val Gln Leu Ile 405 410 415 | | |
| Gly Trp Phe Ala Leu Ala Ser Leu Gly Ala Thr Trp Leu Arg Asp 420 425 430 | | |